June 4, 2015

Ms. Mary Nichols
Board Chairman
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Submitted via web

Re: Modified Text and Availability of Additional Documents to Consider Amendments for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms

Dear Chair Nichols and Board Members:

The undersigned groups appreciate the opportunity to provide comments on the California Air Resources Board (ARB) Draft Updates to the Forest Protocol (Draft). We strongly support AB32 and the inclusion of forest-based offsets in California's cap and trade program. We are pleased to

see Alaska included in the update and commend the great work of ARB staff in working towards its inclusion.

This update also strives to provide much needed clarification to the forest protocol. To this end, we believe a few issues in the Draft would benefit from some additional clarification and therefore have attached a small set of proposed technical adjustments for your consideration.

We look forward to working with you on these issues and please feel free to contact us with any questions or comments.

Sincerely,

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President
The Climate Action Reserve

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President
California Forestry Association

Edward C. Murphy
Manager, Resource Inventory Systems
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#	Section	Comment
1	Definition of 'Clearcutting' Page 3	The current definition refers to the "removal of a stand in one harvest". We recommend amending the language to the "removal of all or most of the trees in a stand in one harvest. It is considered an even-aged regeneration harvest if it is below the retention level cited in the (new – see Comment 3) definition of Even-aged Regeneration Harvest". This will add clarity to the definition and ensure that the focus of verification is on even-aged regeneration harvests. It is not the intent of the even-aged management limitations to restrict even-aged harvests that are stocked, according to the definitions provided in the updated language in Section 3.1(a)(4)(D), following harvest. Additionally, the requirement that clearcuts be 'irregularly shaped and variable in size to mimic natural patterns and features found in landscapes' should be removed or phrased as a recommendation since it is subjective and will result in verification challenges. Additional verification costs will sharply reduce project participation.
2	Definition of 'Countable Tree' Page 4	We recommend adding the following reference from the California Public Resources Code for a "healthy" tree: PRC 4528(b)
3	Definition of 'Even-Aged Management' Page 4	The Reserve recommends removing the definition and replacing the definition with 'Even-Aged Regeneration Harvest or Management' (below). The limitations in the protocol regarding even-aged management are intended to address even-aged regeneration harvests only, not even-aged harvests where the post-harvest stands meet stocking standards immediately upon completion of harvest. Establishing thresholds for even-aged management are a good step to clearly identify what constitutes an even-aged regeneration harvest. There are two problems. First, the definition of all even-aged management is linked to the threshold (it should only be even-aged regeneration) and second, the threshold is based on stocking standards from the California Forest Practice Rules (FPRs). We recommend de-linking the definition of even-aged management from the stocking standards and linking them to the most conservative retention allowed for an even-aged regeneration harvest (see the definition below in Comment 3). Any harvest would be identified as an even-aged regeneration harvest if it falls below this threshold. The effect of the current definition would assert more stringent limitations on California forest landowners than the current FPRs do as variable retention and rehabilitation silviculture would be limited to 40 acres. Retention levels for variable retention and rehabilitation are often below 50 square feet. In addition, we recommend removing the following sentence: "By convention, the spread of ages does not differ by more than 20 percent of the intended rotation". This sentence is not clear and will raise the costs of verification. The term 'Even-Aged Management' is replaced with 'Even-Aged Regeneration Harvest or Management' in subsequent recommendations (Comment #4).
4	Add new definition of 'Even-Aged Regeneration Harvest or Management' Replaces Even-	We recommend the following definition for 'Even-aged regeneration harvest or management' :The harvest step associated with Even-Aged Management that is intended to regenerate the stand with a new cohort of young seedlings, either naturally or artificially through tree planting. Clearcuts, seed tree, and shelterwood seed steps are examples of even-aged regeneration harvests. Any harvest that retains 30 square feet of basal area or less is considered an "Even-Aged Regeneration Harvest". The rationale for this definition is that 30 (Sites 1-3 and 24 on sites 4-5) square feet of

	Aged Management Page 4	basal area is equal to the minimum retention levels in a California definition of Shelterwood Seed Step, the even-aged regeneration step that retains the highest amount of trees.
5	Definition of 'Logical Management Unit' Page 5	While the previous definition of a Logical Management Unit is in need of clarification, the updated definition does not adequately clarify the term. A suggestion for an alternative definition is as follows: "Logical Management Unit" or "LMU" means all landholdings or any subset of landholdings managed explicitly as a defined planning unit that the forest owner(s) and its affiliate(s) either own in fee or hold timber rights on, in which the landholdings or subunit of landholdings are within the same assessment area(s) where the project is located. An LMU may be characterized by its unique biological, geographical, and/or geological attributes, delimited by watershed boundaries and/or elevational zones, and/or unique road networks; by an area impacted by a natural disturbance such as a wildfire or windstorm; by distinct forest types (as defined in the USFS FIA program) that fall within the same assessment area; and/or by a distinct woodshed.
6	Section 3.1(a)(2)(C)3. Sustainable long-term harvesting practices. Page 20	While not noted as an update, this section has been discussed in project verifications as having a retrospective analysis of harvests that occurred prior to the project commencement date. The Reserve believes this section was intended to be forward-thinking and applied to all harvests as of the project commencement date, as indicated in Section 3.1(a)(2): *When a harvest plan is submitted to a state or federal agency or when commercial harvesting is initiated, the Offset Project Operator or Authorized Project Designee must demonstrate that sustainable harvesting practices are employed on all forest landholdings within the geographic areas eligible under this protocol.* While perhaps superfluous, the Reserve recommends adding to the language; "*As of the project commencement date*, the forest owner(s) must employ uneven-aged silvicultural practices (if harvesting occurs)……." This will ensure this section is not mistakenly characterized and consistent with the thinking in Section 3.1(a)(4)(E) that limits examination of harvest practices to those which have occurred subsequent to the commencement date.
7	Section 3.1(a)(4)(B) Even-age regeneration harvest buffers Page 21	We recommend rephrasing the buffer requirements to simply reference that no even-aged regeneration harvest can occur within 300 feet of another un-stocked even-aged regeneration harvest to establish a clear and verifiable standard. Absent this refinement, the lack of a clear metric for assessing the even-aged regeneration buffer will result in increased verification costs.
8	Section 3.1(a)(4)(C) Even-age adjacency requirements. Page 21	The references to even-aged harvest unit, even-aged harvest method, or even-aged management should be refined to reflect the intent of this section to address even-aged regeneration harvest. The term has been suggested previously for inclusion in the update. Otherwise, limitations would be imposed to harvests that are stocked (meet point count or minimum basal area for stocking) upon completion, such as shelterwood removal. Additionally, the language in this section should be based on the California Forest Practice Rule Section 913.1(4) (a) so as not to assert additional restrictions on California projects within the Coast District. The Coast District includes an additional provision to allow stocking standards to be met within three years if the average tree

		height of regenerated trees is at least five feet tall. Hence, the revised section would be improved if it read as: "Within ownership boundaries, no area contiguous to an even-aged *regeneration* harvest unit may be harvested using an even-aged *regeneration* harvest method unless the average of the dominant and codominant trees on an acceptably stocked prior even-aged harvest *regeneration* unit is at least five feet tall, or at least five years of age from the time of establishment on the site, *or average at least five feet tall and three years of age from the time of establishment on the site*, either by the planting or by natural regeneration. If these standards are to be met with trees that were present at the time of the harvest, there shall be an interval of not less than five years following the completion of operations before adjacent even-aged *regeneration* management may occur;
9	Section 3.1(a)(4)(D) Page 20	For consistency, we recommend that the term 'even-aged timber operations' be removed and replaced with the term 'even-aged regeneration harvests'.
10	Section 3.1(a)(4)(D) Page 22	The stocking levels proposed in this section are fine for minimal stocking prior to initiating an adjacent even-aged regeneration harvest but they should not be used to define even-aged management (See Comment 2).
11	Section 3.1(a)(4)(D) Page 22	Clarification of the buffer size and condition is an improvement. However, consideration needs to be provided as to how the stocking standards will be verified. Separate verification guidance should be developed immediately. It is recommended that a simple sampling methodology be developed for verification that focuses on checking the highest risk areas *only* when the appearance of inadequate stocking is present. Lacking verification guidance, this requirement could result in tremendous verification costs and will reduce participation.
12	Section 5.2.1(e)(2)(B)3 Demonstration of Financial Feasibility Page 64	The clarification of how OPOs demonstrate financial feasibility is an improvement. However, we believe the intent of the language is more clear with the following minor edits (in bold and underlined): 3. Comparable species composition to the project area which may be evidenced by **one of** the following: a. (i.e., Comparable property species composition is within 20 percent of project species composition based on trees per acre).; **or** b. Identical codominant species; or c. Identical Forest Type as defined by the USDA Forest Inventory and Analysis Database Description and User Guide for Phase 2 (V6.0.1), Appendix D.
13	Appendix B Quantification Guidance (j) Page 124	The following sentence; "Projected baseline and actual carbon stocks must be portrayed in a graph depicting time (starting from offset project commencement) in the x-axis and carbon tons in the y-axis" appears to include a requirement to provide a projection of the 'actual' carbon tons as part of the initial verification ' The reference to actual carbon stocks should be removed as it is impossible to accurately project, and be held accountable for, project carbon stocks that will be present over the next 100+ years. What is critical for the offset calculation is that an accurate accounting occurs between the actual project carbon tons present and the project's baseline at the end of each monitoring period.
14	General	It is important that the process of protocol modifications be done transparently and with

		care and consideration of the complex interrelationships of terms within the protocol, bringing in the necessary stakeholder expertise, as was present in the development of the protocol, to ensure the changes are practical. Participants make substantial investments over many years to provide offsets to the Cap and Trade Program.